Salmonellosis in the Bovine

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CLINICAL MEDICINE

Salmonellosis in the Bovine

Eighty-three Holstein calves were shipped interstate by truck from Wisconsin to an Iowa farm on February 22, 1962. The length of time that the calves were enroute is unknown, but the total distance was between 300 and 400 miles.

The first calf died on February 24, 1962. During the night of February 26, 1962, nineteen calves died and the following day the practicing veterinarian was called to the farm for the first time. At the time of the first call seventy-five per cent of the remaining herd was visibly sick. Over one-half of the total herd of calves died within eight days after arriving at the farm, and seventy-nine of the total eighty-three died within a period of sixteen days.

The symptoms noted by the practicing veterinarian were a creamy, yellow-colored diarrhea, streaked with blood and of a thin consistency. The calves showed anorexia at one feed and were often dead by the next feeding or within thirty-six hours. The calves that did not die from diarrhea succumbed to a pneumonia.

Medication administered to the calves during the course of the disease consisted of a combination sulfa and streptomycin bolus; neomycin bismuth scour preparation; oral aureomycin and terramycin; injectable streptomycin, penicillin, erythromycin, tylocine, and oral furacin. Blood transfusions and supportive treatments were given. No clinical improvement was noted from any of the therapy.

One calf was submitted to the Iowa State Diagnostic Laboratory on March 7, 1962 for post mortem examination. The lesions noted were those of an acute diffuse interstitial pneumonia, petechial hemorrhages on the epicardium and endocardium, an acute diffuse hemorrhagic abomasitis, colitis, and an acute diffuse catarrhal enteritis. These lesions are suggestive of the pneumo-enteritis complex of viral etiology which is so often observed in the young bovine.

Bacteriological examination of the heart, blood, liver, and splenic tissue resulted in isolation of organisms of the genus Salmonella. This organism was further identified by sero-typing and found to be Salmonella typhimurium.

This case was diagnosed as pneumo-enteritis complicated by Salmonella typhimurium. It was felt that the Salmonella typhimurium played an important role because of the acute diffuse hemorrhagic colitis and high mortality rate. It is not known whether the Salmonella typhimurium or the pneumo-enteritis virus was the primary agent because virus isolations were not performed. The diagnosis was made on the basis of lesions and history alone.

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Testicular Anomalies

During rail inspection of hog carcasses in a Sioux City meat packing plant, a carcass was tagged U.S. Retained for further examination.

Several (15-20) well organized growths were observed on the peritoneal surfaces of the liver, spleen, and mesentery. The growths varied in size from that of a pea to growths oblong, one and one-half inches long. They were well supplied with blood and had the gross appearance of testicular tissue.

Samples were removed and the carcass was held under refrigeration until histo-